

Application No. 09/590,221
Amendment dated May 10, 2006
After Final Office Action of February 16, 2006

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REMARKS

Applicant thanks the Examiner for granting an interview on May 5, 2006. This Amendment follows up on that interview. It presents the claimed subject matter in a form that more clearly defines the invention. In addition, applicant addresses below the three new U.S. patents cited by the Examiner for the first time during the interview, U.S. Patent No. 6,175,540 to Kim; U.S. Patent No. 6,181,658 to Van Den Enden and U.S. Patent No. 6,292,458 to Eguchi et al., explaining why they do not, whether taken alone or in combination with other art of record, teach or suggest the claimed features.

As clarified at the interview, and as now made more explicit in currently amended independent claims 6 and 9, in applicant's recording medium, e.g., a CD or a DVD, track areas are formed on adjacent lands (claim 6), or adjacent grooves (claim 9). The adjacent land tracks each have a wobbled side wall that face one another across a common wobbled groove. The adjacent groove tracks each have a wobbled side wall separated by a common wobbled land. In addition, in both the claim 6 land/track embodiment and the claim 9 groove/track embodiment, each track area has an opposite side wall that is not wobbled (e.g., at "G2" in Fig. 7(a)). This construction forms an adjusting area that shows the correspondence between a given wobbling polarity and one of the two adjacent track areas, as explained, e.g., with reference to Figs. 7(b)-7(e).

Dependent claims 7 and 10 specify that in this adjusting area, the first and second track areas are also characterized by having different track widths. Dependent claims 8 and 11 specify that the recording medium is a disk, and this adjusting area is located at at least one of the innermost and outermost areas of the disk.

Applicant respectfully traverses the rejection of claims 6-11 under 35 U.S.C. 102(b) as anticipated by Fuji (U.S. Patent No. 5,852,599). As explained at the interview, in Fuji, and in sharp contrast to the present claimed invention, adjacent track areas are grooves 2 and lands 3. Figs. 5(a) and 5(b) of Fuji show the differences in the detected signals when groove 2 or land 3, respectively, is scanned. No adjacent tracks

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have wobble walls spaced from one another by a common groove or land. The construction of Fuji is therefore fundamentally different from the construction claimed by applicant.

As also noted at the interview, Fuji teaches one to use notches 5 formed on or into the lands to provide absolute position information (col. 8, lines 66-67). The notches are also used to provide wobble polarity information, but they do so only in combination with, and in synchronization with, a single wobbling side 5 wall between a land and groove. (See col. 13, line 50 to col. 14, line 2). This is a fundamentally different construction than applicant's recording medium, and a fundamentally different wobble polarity correspondence to track area determination than that provided by applicant's claimed invention.

While the Examiner understood these distinctions at the interview (as reflected, in part, in comment "1" on the Interview Summary), he raised the question of whether the Eguchi '458 and Van Den Enden '658 references teach or suggest applicant's claimed invention.

Eguchi '458 discloses a series of spiral or concentric groove and land tracks. The groove walls wobble in coordination with one another. The inner groove walls shown in Fig. 1 are continuously wobbling and give synchronization information. The outer groove walls include non-wobbled sections 21 that give address information. The Fig. 2 embodiment reverses that arrangement, with the continuously wobbling wall for synchronization information being the outer wall, and the non-wobbled sections with address information at the inner wall. Note also that Eguchi claim 1, lines 17-19 in Col. 10, specifies that "widths of said at least one groove and said at least one land are substantially constant throughout, and ... all of said tracks wobble substantially in phase." Eguchi teaches no non-wobbled side wall (e.g., at "G2" in Fig. 7(a)) opposite a wobbled side wall, as claimed, and no "double-wobbled" groove or land, e.g., applicant's "G1." The width of applicant's tracks are therefore not substantially constant in width. The Eguchi's construction and the resulting mode of operation are opposite to,

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and teach away from, the claimed construction and resulting mode of operation of the present invention.

The Van Den Enden '658 reference discloses a recording medium with "servo" tracks formed as grooves 20, 22 (Fig. 3) that record and read out information, and with an intervening land 21 that is a "non-servo track" that "does not comprise its own position information" (Col. 3, lines 8-9). Van Den Enden teaches the use of m or n bit words (m and n being integers) to convey position information. Applicant forms no such bit words. Moreover, Van Den Enden teaches at Col. 6, lines 38-42 that in scanning a groove, position information cannot be obtained in the same manner as when scanning a land "because the groove edges on both sides of the land have in general different modulations."

Further, Van Den Enden teaches the use of clock marks regularly arrayed along a track. (Col. 6, lines 6-17) Values of a channel bit are represented by the phase of variation of a servo track width. "with respect to clock marks embedded in the track modulation." (See, e.g., col. 3, line 66 to col. 4, line 6 (emphasis supplied), and claim 5). The Van Den Enden clock marks function in the manner of the Fuji notches 5. Position Information in Fuji and Van Den Enden is determined by looking at the signal from a given track at a given place/time associated with the presence of a notch or clock-mark. Note also that the Van Den Enden track construction, e.g., as shown in Fig. 3, has no non-wobbled track area side walls; all of the pending claims explicitly require track areas each with one non-wobbled side wall.

Van Den Enden does not teach these construction features presently claimed. Nor does it suggest them -- it teaches away, to a different solution.

The Examiner also noted at the interview that "adjusting area" could be read broadly to include a construction such as the header area (Fig. 2) of the new Kim '540 reference using slightly off-track pre-pits. While applicant is of the opinion that claims 6 and 9, when read in light of the specification, are clear that the claimed track and wall construction is used for an adjusting area, the foregoing amendments make this feature

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even more explicit. The claims clearly distinguish over the pre-pit header of Kim as an adjusting area. Nor does Kim offer any teaching or suggestion that adjacent track areas in the adjusting area have different widths, as defined by claims 7 and 10.

The Eguchi, Van Den Enden and Kim patents are new references of record whose citation was not in response to any amendment (applicant filed a "Response" on November 22, 2005). Applicant requests that if the Examiner should not allow this application in response to the interview and this paper, then, pursuant to MPEP § 706.07, he withdraw the finality of the pending Office Action mailed on February 16, 2006.

In view of the foregoing amendments and Remarks, applicant urges that the pending claims clearly distinguish over the art of record, and that this application is otherwise in condition for allowance.

If the Examiner should have any further questions or comments, he is invited to telephone the undersigned attorney.

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Respectfully submitted,

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